



[Home](#) [Documentation](#) [VM-Sickbay](#) [MOA](#) [News](#) [About](#)

## ***Linked clones with ESXi without the help of a vCenter***

As soon as you can create snapshots you have all the ingredients required to create linked clones. This will walk you through the process of creating a bunch of linked clones from one master.

Only tools used are the vSphere client and a text editor on a Windows host.

First create the master VM.

It is recommended to use a thin disk ...

Give it a reasonable name - so that it stands out from the other VMs. In the example I called the VM "dont\_touch"

Capacity

Disk Size:

Disk Provisioning

☒ Allocate and commit space on demand (Thin Provisioning)

☐ Support clustering features such as Fault Tolerance

Install the new VM and when done reboot it and install VMware-tools.

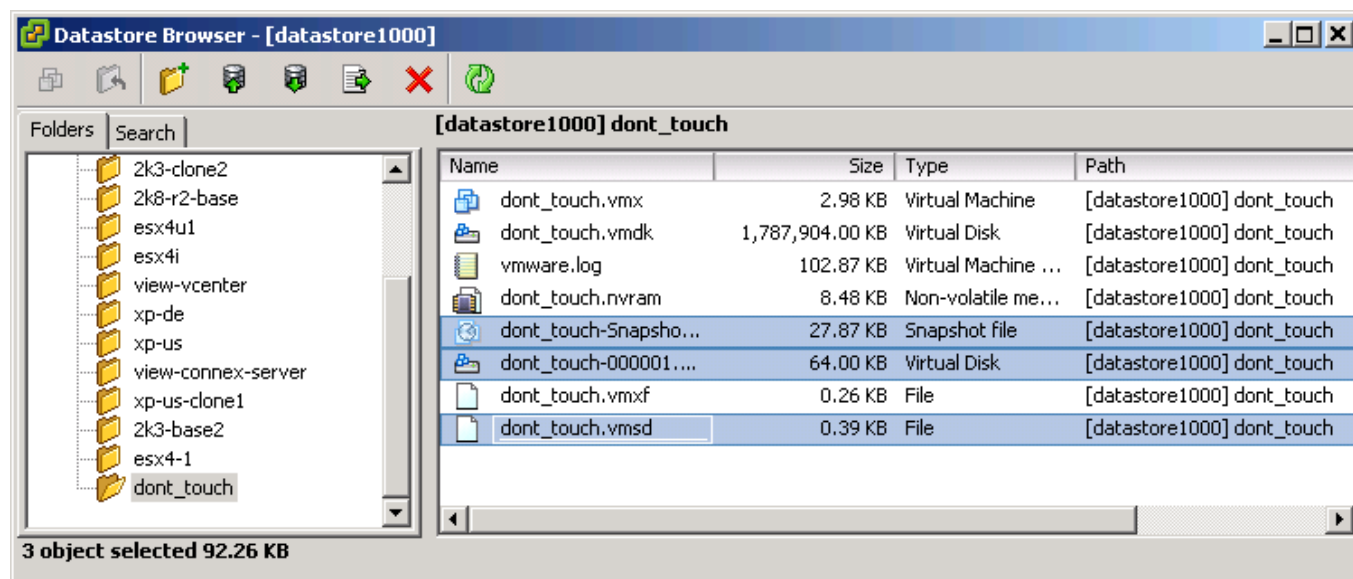
Feel free to add more apps ... or sysprep the master VM ...

Once you are satisfied power down the VM.

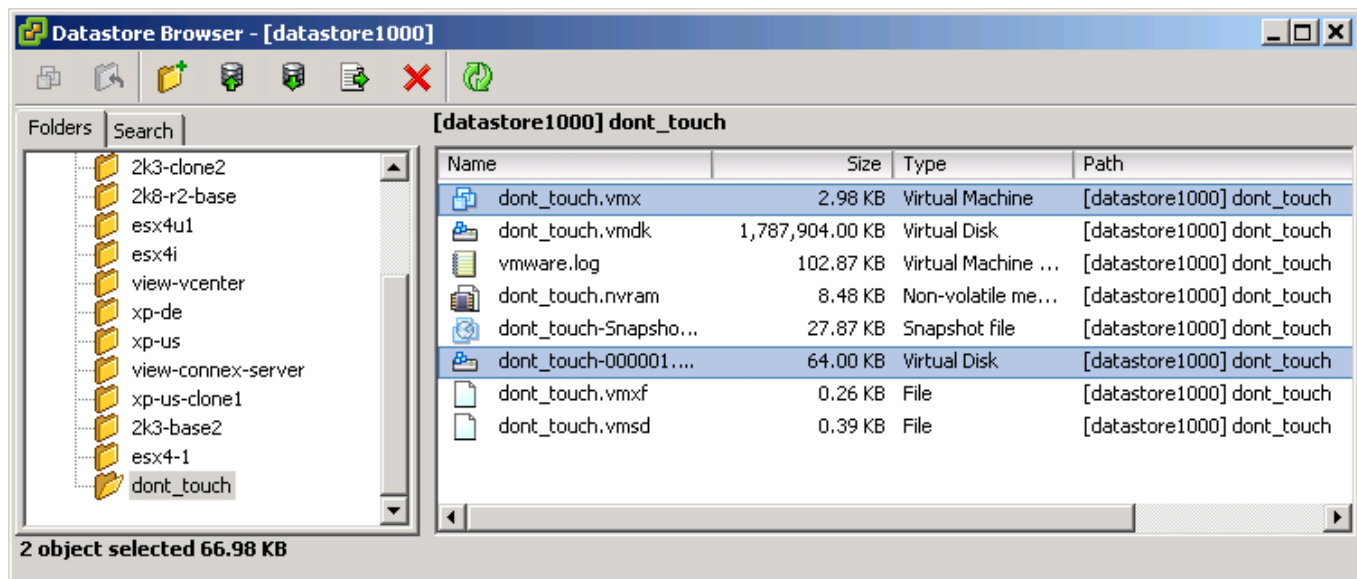
Now create a snapshot with the vClient.

See the screenshot - the files that belong to the snapshot are highlighted.

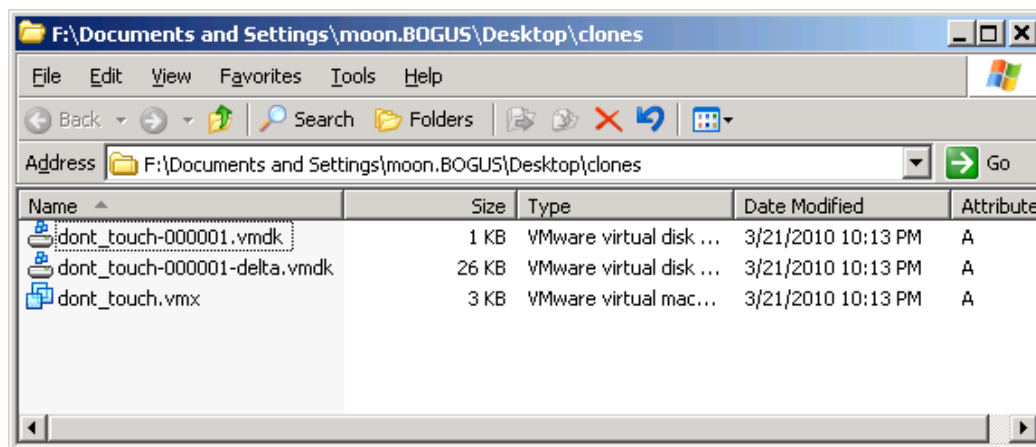
From now on regard the directory "dont\_touch" as readonly. Do not start the VM again.



Next use the datastorebrowser and download the two files highlighted in the next screen : the vmx and the snapshot-vmdk.



On your Windows-host the two downloaded files should now look like this.  
 Don't worry - the datastorebrowser is a funny guy - he shows you two files but downloads three.  
 And ... he thinks this is helpful ;-)



First thing to do is edit the "dont\_touch-000001.vmdk"  
 It now looks like :

```
# Disk DescriptorFile
version=1
encoding="UTF-8"
CID=fa3d08b7
parentCID=fa3d08b7
createType="vmfsSparse"
parentFileNameHint="dont_touch.vmdk"
# Extent description
RW 25165824 VMFSPPARSE "dont_touch-000001-delta.vmdk"

# The Disk Data Base
#DDB
ddb.longContentID = "9b8da3d63cda1e5dbea7c0f4fa3d08b7"
```

As we want an absolute path for the parentFileNameHint parameter we edit the vmdk-descriptor so that it looks like:  
 Note the yellow line ! It shows the edited path.

```
# Disk DescriptorFile
version=1
encoding="UTF-8"
CID=fa3d08b7
parentCID=fa3d08b7
createType="vmfsSparse"
parentFileNameHint="/vmfs/volumes/4ba3aca0-eca4fd60-312d-f4ce46af50b6/dont_touch/dont_touch.vmdk"
# Extent description
RW 25165824 VMFSPPARSE "dont_touch-000001-delta.vmdk"
```

```
# The Disk Data Base
#DDB
ddb.longContentID = "9b8da3d63cda1e5dbea7c0f4fa3d08b7"
```

Tip: to find out the absolut path look it up in the vmx-file - the parameter sched.swap.derivedName also uses the absolut path.

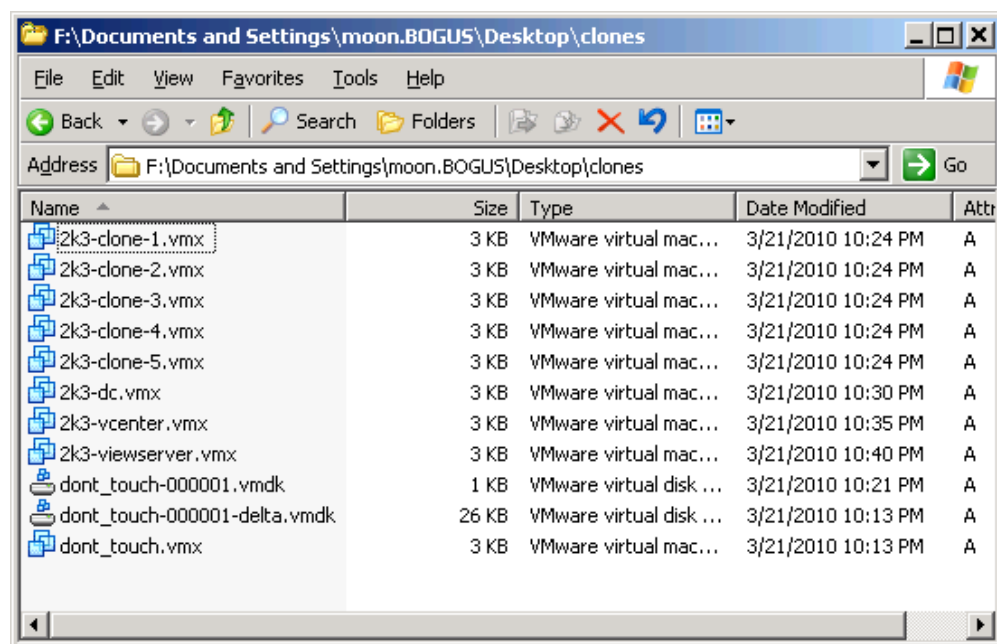
```
sched.swap.derivedName = "/vmfs/volumes/4ba3aca0-eca4fd60-312d-f4ce46af50b6/dont_touch/dont_touch-aafe8f9c.vswp"
```

The part marked in yellow shows the absolute path that is required to adjust the vmdk-description. Now is also a good time to delete that parameter from the vmx-file. Don't forget that !

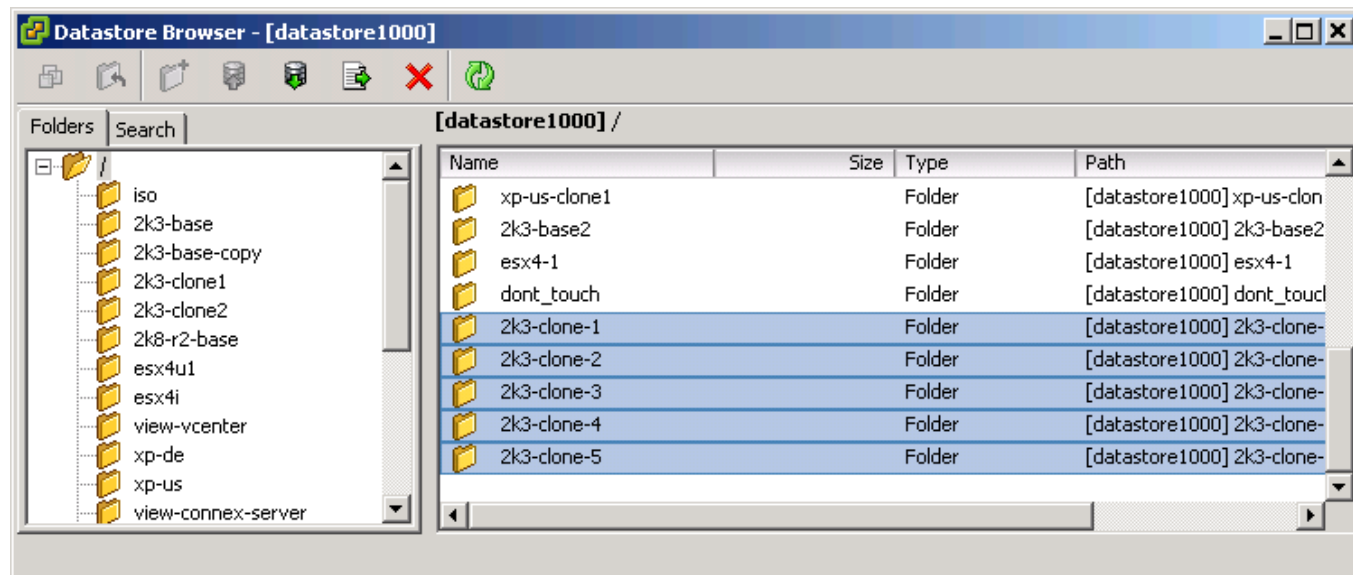
Now we can create several copies of the vmx-file.  
Give every file a new name and adjust the display name parameter.

```
displayName = "2k3-clone-1"
```

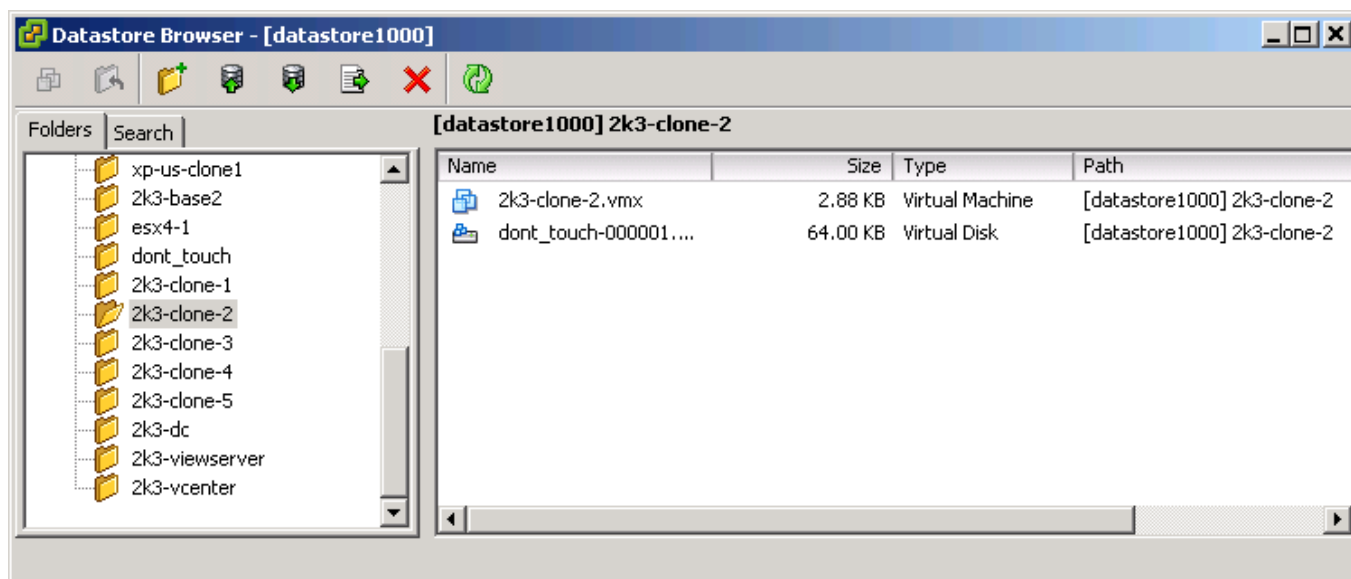
Screenshot below shows several new copies of the vmx-file - each one has the display-name adjusted and the sched.swap.derivedName line removed.



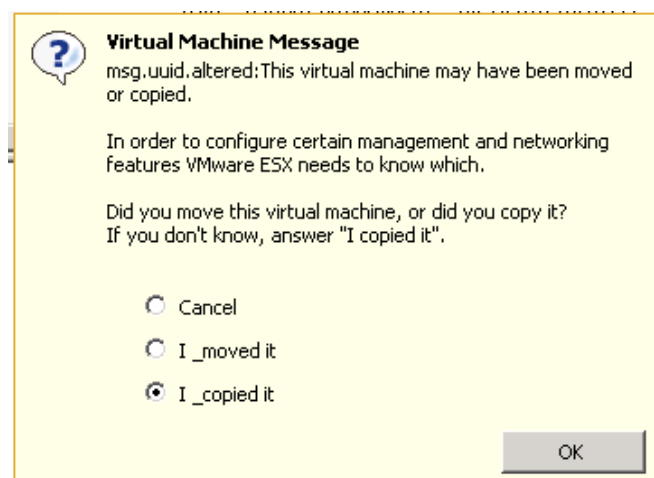
Now back on the ESXi create several new directories for the clones.



Into each new directory copy the appropriate vmx-file plus the two vmdks.  
Again - don't worry - you need to upload three files but datastorebrowser only displays two.



Now all is left to do is add the vmx-file to the inventory and make sure you click "I copied it" on first launch.



During first boot of the cloned VM it is advisable to unconnect the network-card.

On a Windows VM you may want to run newsid.exe, change the hostname and configure the network on first boot. Then reboot and enable the nics.

top

/p>  
top